

REMARKS

Applicant respectfully requests reconsideration and allowance of the subject application. Claims 1-31 are pending in the application.

Statement of Substance of Interview Dated December 19, 2006

Applicant wishes to greatly thank Primary Examiner Lee for conducting a telephonic interview with Applicant's agent, Robert G. Hartman, on December 19, 2006. During the interview, Applicant's agent submitted differences between U.S. Pat. Pub. No. 2004/0205653 to Hadfield et al. (hereinafter, "Hadfield") and the claimed subject matter. For example, Applicant submitted that Hadfield does not disclose "updating [a] database". Although no agreement was reached, Applicant's agent understood the Primary Examiner to appreciate these differences between Applicant's disclosure and Hadfield. The Primary Examiner also indicated that he would need to update his search. In accordance with the Primary Examiner's request, Applicant herein provides arguments pertaining to Hadfield's failure to anticipate Applicant's claim, as discussed during the interview.

In addition to providing these requested remarks, however, Applicant herein also amends the independent claims to further clarify the differences between the Applicant's claims and the Hadfield reference. More specifically, Applicant amends the claims to recite that "the hierarchical database [is] distinct from the original XML document". Applicant notes that these amendments are made for the sole purpose of advancing prosecution and without conceding the propriety of the Office's rejections.

Applicant once more thanks Primary Examiner Lee for his time and insight given during the above-referenced interview.

The Rejections under 35 U.S.C. §102

5 Claims 1-30 are rejected under 35 U.S.C. §102(e) as being anticipated by Hadfield.

Before discussing the substance of the Office's rejections, however, the following discussion of Applicant's disclosure as well as the Hadfield reference is provided to assist the Office in appreciating the patentable distinctions between
10 Applicant's claimed subject matter and the cited reference Hadfield.

Applicant's Disclosure

The description provided in this section is provided to assist the Office in appreciating the subject matter described in Applicant's specification. The
15 description is not intended to be used to imply or impose specific limitations with regard to Applicant's claims.

Perhaps a good place to start to gain an appreciation of the claimed subject matter is in Applicant's "Background" section. There, the "Background" section describes that Extensible markup language (XML) is increasingly becoming the
20 preferred format for transferring data. XML is a tag-based hierarchical language that provides the ability to represent data in diverse formats and contexts. For example, XML can be used to represent data spanning the spectrum from semi-structured data (such as one would find in a word-processing document) to generally structured data. XML is well-suited for many types of communication

including business-to-business and client-to-server communication. Data represented in XML is often created and retained in electronic documents, such as electronic forms.

Conversely, databases are computerized information storage and retrieval systems. A Relational Database Management System (RDBMS) is a database management system (DBMS) which uses relational techniques for storing and retrieving data. The information stored in a RDBMS is typically *hierarchical* in nature. Parent-child relationships are defined through integrity constraints across multiple relational tables. But it frequently makes sense to present this information to humans (or other applications) as *hierarchical* information, which can be done using XML. When hierarchical database information is persisted as a structured XML document, a unique set of challenges are created in translating the changes to the XML document back into the database. For example, while XML data is by nature hierarchical, typically the only relationship between a parent and a child is the fact that the child is contained within the parent. By contrast, in a database both parent and child will contain common data kept in sync through referential integrity.

When XML is used as a temporary persistence format for data retrieved from a hierarchical database to be consumed by a wide variety of applications (*e.g.*, web services, internet application, thin client applications), it is important that the retrieved information can be returned to its original storage format (*e.g.*, a database) properly reflecting the changes made by the application(s) that manipulated the data. *Applicant's Specification, Background.*

The systems and methods described in embodiments of the present application permit hierarchical database information to be downloaded into an XML document for presentation to a user, or to an application, for editing. *Changes to the data made during the editing process are tracked, and the data*
5 *may be uploaded **back to the database**. Applicant's Specification, Summary.* Thus, an important distinction in Applicant's disclosure is between that of an XML document used for editing and a distinct database, such as a hierarchical database, for hierarchically storing the information as it changes in the XML document.

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The Hadfield Reference

Hadfield describes document collaboration between a managing author using a document management system (DMS), and one or more contributing authors. In one embodiment the managing author selects an original document
15 from the DMS. Next, a replica of the original document is made and sent by the managing author to the one or more contributing authors. A contributing author makes proposed changes and comments to the replica. The edited replica with the proposed changes is converted into a response that is sent back to the managing author. The proposed changes for the contributing author are determined using the
20 response and displayed on a graphical user interface (GUI) for viewing by the managing author. *The managing author then accepts or rejects the proposed changes to the original document from the contributing author. Hadfield, Abstract. Importantly, Hadfield does not reflect the changes in a distinct database, but rather only in the document itself.*

The Claims

Claim 1 recites a method of managing XML documents, comprising
(emphasis added):

- 5 • receiving an original XML document that *includes information from a hierarchical database, the hierarchical database being distinct from the original XML document*;
- generating a copy of the original XML document;
- 10 • annotating the original XML document with an identifier that uniquely identifies each node in the document and a corresponding node in the copy of the XML document;
- accepting at least one edit operation to the original XML document;
- modifying at least one annotation to the original XML document in response to the at least one edit operation;
- 15 • identifying at least one change to the original XML document as a result of the at least one edit operation; and
- *updating the database to reflect the change to the original XML document.*

20 In making out a rejection of this claim, the Office states that Hadfield discloses all of the elements of this claim. The Office particularly relies on Hadfield's paragraphs [0102]-[0105]. The subject matter of these paragraphs is consistent with the Hadfield document as a whole, which has been discussed above. More specifically, this portion of Hadfield states that one or more

25 contributing authors may suggest changes to an original document in the form of an edited replica. The contributing author then sends the edited replica back to the managing author via email. The managing author of the document then receives and views a "comparison file", which is simply a version of the document that annotates the proposed changes suggested by the contributing author. These

30 suggested changes may or may not be accepted into an evolving document by the

managing author. This evolving document is simply the original document as it is updated with accepted changes.

Applicant respectfully traverses the rejection of claim 1, and submits that Hadfield fails to anticipate for at least the following reasons: (1) Hadfield only discloses incorporating changes back into an original document, and thus does not disclose “updating the database to reflect the change to the original XML document”, and (2) Hadfield similarly fails to disclose “receiving an original XML document that includes information from a hierarchical database, the hierarchical database being distinct from the original XML document”.

First, Applicant respectfully submits that Hadfield fails to disclose “updating the database to reflect the change to the original XML document”. As discussed above, Hadfield discloses receiving proposed changes to a document and, if the managing author so desires, accepting the proposed changes to an original copy of the document. Therefore, only this original copy of the document is updated in such a manner. As such, Hadfield does not teach “updating the database” to reflect these changes. Nevertheless, as discussed above, Applicant has amended claim 1 to recite that the “database [is] *distinct* from the original XML document”. Therefore, even assuming without conceding that Hadfield’s document is a database, Hadfield cannot be said to anticipate as such a database would not be *distinct* from the document itself.

Furthermore, Applicant notes that the Office’s own logic precludes Hadfield from disclosing “updating the database”. To make such a showing, Applicant first notes that the Office cites to this “original document” of Hadfield as disclosing Applicant’s claimed “original XL document”. Without commenting

on this contention, Applicant submits that Hadfield only discloses updating this “original document”. Applicant’s claim meanwhile, recites “updating the *database* to reflect the change to the *original XML document*”. As claimed, the “database” and the “original XML document” are two distinct entities. The
5 Office, however, appears to cite to Hadfield’s original document as disclosing both Applicant’s “original XML document” as well as Applicant’s “database”. According to this logic, Applicant’s claim would need to recite “updating the [original XML document] to reflect the change to the original XML document”, which it does not. Instead, Applicant’s claim recites updating “the database” to
10 reflect the change to the original XML document. Therefore, even if Hadfield’s original document was a database—upon which Applicant does not comment—then Hadfield would still fail to anticipate. Applicant again notes that this claim has been amended to further emphasize that the XML document and the database are indeed distinct.

15 For at least this reason, this claim stands allowable.

Second, Applicant respectfully submits that Hadfield fails to disclose “receiving an original XML document that includes information from a hierarchical database, the hierarchical database being distinct from the original XML document”. Again, Hadfield only discloses sending and receiving
20 documents, and making changes to an original document. Hadfield does not disclose, however, “receiving [a]...document that includes information from a [distinct]...database”. At most, Hadfield disclose receiving information from Hadfield’s original document. Hadfield thus fails to disclose “receiving an original XML document that *includes information from a hierarchical database, the*

hierarchical database being distinct from the original XML document", as recited in Applicant's claim.

For at least this additional reason, this claim stands allowable.

Claims 2-10 depend from claim 1 and, as such, the remarks made above in regards to claim 1 apply equally to these claims. The rejections of these claims are also improper as failing to disclose these claims' own recited features which, in combination with those recited in claim 1, are not shown to be disclosed in the reference of record.

Claim 11 recites a system for managing XML documents, comprising (emphasis added):

- a computing device including a display, a user-input device, and a processing unit, and a memory module the memory module comprising:
 - a database module to *retrieve data from a database*, and to format and display the data in an original XML document, *the database being distinct from the original XML document*;
 - an XML processing module to generate a copy of the original XML document and to annotate at least one of the original XML document and the copy of the XML document with an identifier that uniquely identifies each node in the document;
 - an XML editing module to accept edits to the original XML document and to modify at least one annotation to the XML data in response to the at least one edit;
 - an XML conversion module to identify at least one change to the original XML document as a result of the at least one edit operation; and to *update the database to reflect the change to the original XML document*.

In making out a rejection of this claim, the Office uses reasoning similar to that discussed above in regards to claim 1. Thus, for at least the reasons discussed above in regards to claim 1, this claim stands allowable. For instance, Hadfield at

least fails to disclose “*updat[ing] the [distinct] database to reflect the change to the original XML document*”, as recited in Applicant’s claim. Instead, Hadfield only discloses accepting changes the original document itself. Furthermore, Hadfield also fails to disclose “a database module to *retrieve data from a database..., the database being distinct from the original XML document*”, also as
5 recited in Applicant’s claim.

Claims 12-20 depend from claim 11 and, as such, the remarks made above in regards to claim 11 apply equally to these claims. The rejections of these claims are also improper as failing to disclose these claims’ own recited features
10 which, in combination with those recited in claim 11, are not shown to be disclosed in the reference of record.

Claim 21 recites one or more computer-readable media comprising computer executable instructions that, when executed on a computer, direct the computer to (emphasis added):
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- receive an original XML document that *includes information from a hierarchical database, the hierarchical database being distinct from the original XML document*;
- generate a copy of the XML document;
- 20 • annotate at least one of the original XML document and the copy of the XML document with an identifier that uniquely identifies each node in the document;
- accept at least one edit operation to the original XML document;
- modify at least one annotation to the XML in response to the at least
25 one edit operation;
- identify at least one change to the original XML document as a result of the at least one edit operation; and
- *update the database to reflect the change to the original XML document.*
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In making out a rejection of this claim, the Office uses reasoning similar to that discussed above in regards to claim 1. Thus, for at least the reasons discussed above in regards to claim 1, this claim stands allowable. For instance, Hadfield at least fails to disclose “*updat[ing] the [distinct] database* to reflect the change to the original XML document”, as recited in Applicant’s claim. Instead, Hadfield only discloses accepting changes the original document itself. Furthermore, Hadfield also fails to disclose “*receiv[ing] an original XML document that includes information from a hierarchical database, the hierarchical database being distinct from the original XML document*”, also as recited in Applicant’s claim.

Claims 22-30 depend from claim 21 and, as such, the remarks made above in regards to claim 21 apply equally to these claims. The rejections of these claims are also improper as failing to disclose these claims’ own recited features which, in combination with those recited in claim 21, are not shown to be disclosed in the reference of record.

Claim 31 has been added, and recites a method of managing markup language documents, comprising (emphasis added):

- 5 • receiving an original markup language document that *includes information from a hierarchical database, the hierarchical database being distinct from the original markup language document*;
- generating a copy of the original markup language document;
- 10 • annotating the original markup language document or the copy of the markup language document with an identifier that uniquely identifies each node in the annotated markup language document and a corresponding node in the other markup language document;
- accepting at least one edit operation to the annotated markup language document;
- 15 • modifying at least one annotation to the annotated markup language document in response to the at least one edit operation;
- identifying at least one change to the annotated markup language document as a result of the at least one edit operation; and
- 20 • *updating the database to reflect the change to the annotated markup language document.*

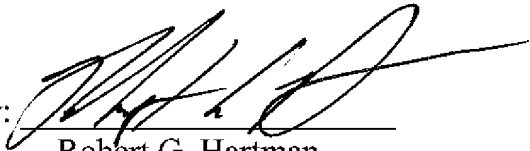
Applicant respectfully submits that this claim stands allowable for at least the reasons discussed above in regards to claim 1. For instance, Hadfield at least fails to disclose “*updat[ing] the [distinct] database to reflect the change to the*
25 *annotated markup language document*”, as recited in Applicant’s claim. Instead, Hadfield only discloses accepting changes the original document itself. Furthermore, Hadfield also fails to disclose “*receiv[ing] an original markup language document that includes information from a hierarchical database, the hierarchical database being distinct from the original markup language*
30 *document*”, also as recited in Applicant’s claim.

Conclusion

Claims 1-31 are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of the subject application. If any issue remains unresolved that would prevent allowance of this case, the Examiner is requested to contact the undersigned agent to resolve the issue.

Respectfully Submitted,

Date: 1/19/2007

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